

ClaimsWhat is claimed is:

- 1 1. In a computer controlled user-interactive display
2 system, a display interface implementation for providing
3 alternate access for physically impaired users to items
4 normally displayed in drop down menus comprising:
5 means for displaying a sequential set of drop down
6 menus, each having a plurality of selectable items;
7 selection means scrolled along each of said menus;
8 and
9 means enabling a user to selectively display as an
10 alternative to said set of menus, a hierarchical
11 arrangement of selectable items corresponding to items in
12 said set of menus.
- 1 2. The display interface implementation of claim 1
2 wherein:
3 the menus in said sequential set of drop down menus
4 sequentially vary from each other in scope; and
5 said alternative hierarchical arrangement of
6 selectable items is a tree of said items with sequential
7 levels of varying scope respectively corresponding to the
8 varying scope of said set of menus.
- 1 3. The display interface implementation of claim 2
2 wherein said selectable items in said tree are icons.
- 1 4. The display interface implementation of claim 3
2 wherein said icons are varied in size so as to be
3 optimized to diminish the effects of the individual
4 user's impairment.

1 5. The display interface implementation of claim 4
2 wherein said icons in said tree are varied in distance
3 from each other so as to be optimized to diminish the
4 effects of the individual user's impairment.

1 6. The display interface implementation of claim 4
2 further including:

3 means for tracking use characteristics of an
4 individual user; and

5 means responsive to said tracking means for
6 dynamically varying said sizes of said icons.

1 7. The display interface implementation of claim 4
2 further including:

3 means for tracking use characteristics of an
4 individual user; and

5 means responsive to said tracking means for
6 eliminating rarely used icons from said tree.

1 8. The display interface implementation of claim 6
2 wherein said means for tracking use characteristics of an
3 individual user includes:

4 means for counting the number of times that a
5 plurality of icons are selected; and

6 means responsive to said counting means for varying
7 the sizes of said icons relative to the selection counts
8 of said icons.

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1 9. A method for providing alternate access for
2 physically impaired users to items normally displayed in
3 drop down menus in computer controlled user-interactive
4 display systems comprising:
5 displaying a sequential set of drop down menus, each
6 having a plurality of selectable items;
7 enabling a user to select items from each of said
8 menus by scrolling along each of said menus; and
9 enabling a user to selectively display as an
10 alternative to said set of menus, a hierarchical
11 arrangement of selectable items corresponding to items in
12 said set of menus.

1 10. The method for providing alternate access for
2 physically impaired users of claim 9 wherein:
3 the menus in said sequential set of drop down menus
4 sequentially are varied from each other in scope; and
5 said alternative hierarchical arrangement of
6 selectable items is arranged in a tree of said items with
7 sequential levels of varying scope respectively
8 corresponding to the varying scope of said set of menus.

1 11. The method for providing alternate access for
2 physically impaired users of claim 10 wherein said
3 selectable items in said tree are icons.

1 12. The method for providing alternate access for
2 physically impaired users of claim 11 including the
3 further step of varying said icons in size to optimize
4 said tree to diminish the effects of the individual
5 user's impairment.

1 13. The method for providing alternate access for
2 physically impaired users of claim 12 including the
3 further step of varying said icons in said tree in
4 distance from each other to optimize said tree to
5 diminish the effects of the individual user's impairment.

1 14. The method for providing alternate access for
2 physically impaired users of claim 12 further including
3 the steps of:
4 tracking use characteristics of an individual user;
5 and
6 dynamically varying said sizes of said icons
7 responsive to said tracking.

1 15. The method for providing alternate access for
2 physically impaired users of claim 12 further including
3 the steps of:
4 tracking use characteristics of an individual user;
5 and
6 dynamically eliminating rarely used icons from said
7 tree responsive to said tracking.

1 16. The method for providing alternate access for
2 physically impaired users of claim 14 wherein said
3 tracking use characteristics of an individual user
4 includes the steps of:
5 counting the number of times that a plurality of
6 icons are selected; and
7 varying the sizes of said icons relative to the
8 selection counts of said icons.

1 17. A computer program having program code included on a
2 computer readable medium for providing alternate access
3 for physically impaired users to items normally displayed
4 in drop down menus in computer controlled user-
5 interactive display systems comprising:

6 means for displaying a sequential set of drop down
7 menus, each having a plurality of selectable items;

8 selection means scrolled along each of said menus;
9 and

10 means enabling a user to selectively display as an
11 alternative to said set of menus, a hierarchical
12 arrangement of selectable items corresponding to items in
13 said set of menus.

1 18. The computer program of claim 17 wherein:

2 the menus in said sequential set of drop down menus
3 sequentially vary from each other in scope; and

4 said alternative hierarchical arrangement of
5 selectable items is a tree of said items with sequential
6 levels of varying scope respectively corresponding to the
7 varying scope of said set of menus.

1 19. The computer program of claim 18 wherein said
2 selectable items in said tree are icons.

1 20. The computer program of claim 19 wherein said icons
2 are varied in size so as to be optimized to diminish the
3 effects of the individual user's impairment.

1 21. The computer program of claim 20 wherein said icons
2 in said tree are varied in distance from each other so as
3 to be optimized to diminish the effects of the individual
4 user's impairment.

1 22. The computer program of claim 20 further including:
2 means for tracking use characteristics of an
3 individual user; and
4 means responsive to said tracking means for
5 dynamically varying said sizes of said icons.

1 23. The computer program of claim 20 further including:
2 means for tracking use characteristics of an
3 individual user; and
4 means responsive to said tracking means for
5 eliminating rarely used icons from said tree.

1 24. The computer program of claim 22 wherein said
2 means for tracking use characteristics of an individual
3 user includes:
4 means for counting the number of times that a
5 plurality of icons are selected; and
6 means responsive to said counting means for varying
7 the sizes of said icons relative to the selection counts
8 of said icons.

1 25. The display interface implementation of claim 6
2 wherein said means for tracking use characteristics of an
3 individual user includes:
4 means for counting the number of times that a
5 plurality of icons are selected; and
6 means responsive to said counting means for varying
7 the locations of said icons in said hierarchical tree
8 relative to the selection counts of said icons.

1 26. The method for providing alternate access for
2 physically impaired users of claim 14 wherein said
3 tracking use characteristics of an individual user
4 includes the steps of:
5 counting the number of times that a plurality of
6 icons are selected; and
7 varying the locations of said icons in said
8 hierarchical tree relative to the selection counts of
9 said icons.

1 27. The computer program of claim 22 wherein said
2 means for tracking use characteristics of an individual
3 user includes:
4 means for counting the number of times that a
5 plurality of icons are selected; and
6 means responsive to said counting means for varying
7 the locations of said icons in said hierarchical tree
8 relative to the selection counts of said icons.

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